

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Continental Resources, Inc.
Well Name/Number: Babka 3-12H
Location: SW SW Section 12 T24N R52E
County: Richland, **MT; Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time no, 50 to 60 days drilling time.
Unusually deep drilling (high horsepower rig) no, single lateral Bakken horizontal 15,602' MD
Possible H₂S gas production slight
in/near Class I air quality area no
Air quality permit for flaring/venting (if productive) n/a

Mitigation:

- ☐ Air quality permit (AQB review)
- ☐ Gas plants/pipelines available for sour gas
- ☐ Special equipment/procedures requirements
- ☐ Other: _____

Comments: no special concerns – using triple rig to drill to single lateral

Water Quality

(possible concerns)
Salt/oil based mud yes, freshwater and freshwater mud system on surface hole and oil based saltwater mud system on mainhole. Brine water to drill horizontal laterals.
High water table no
Surface drainage leads to live water no, nearest drainage is East Redwater Creek drainage about 1 mile, from this location.
Water well contamination no, water wells shallower than surface casing setting depth. Surface casing hole will be drilled with freshwater and casing will be cemented to surface.
Porous/permeable soils no, bentonite soils
Class I stream drainage no

Mitigation:

- ☒ Lined reserve pit
- ☒ Adequate surface casing
- ☐ Berms/dykes, re-routed drainage
- ☐ Closed mud system
- ☐ Off-site disposal of solids/liquids (in approved facility)
- ☐ Other: _____

Comments: 1260' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)
Stream crossings no, crossing.

High erosion potential no, moderate cut, up to 20' and moderate fill, up to 17', required.

Loss of soil productivity no, location will be restored after drilling

Unusually large wellsite no, 450'X400' location size required.

Damage to improvements no

Conflict with existing land use/values Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Access will be off of an existing county road #133 and existing well road- an access road of about 425' will be built into this location. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences no residences within 1 mile of this location.

Possibility of H2S slight

Size of rig/length of drilling time Triple drilling rig 50 to 60 days drilling time

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: no concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a None identified.

Proximity to recreation sites none identified

Creation of new access to wildlife habitat no

Conflict with game range/refuge management no

Threatened or endangered Species no

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: _____

Comments: no concerns

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DSL, federal agencies)

☐ Other: _____

Comments: on private land

Social/Economic

(possible concerns)

☐ Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: no concerns

Remarks or Special Concerns for this site

Well is a 15,602' MD and 9083' TVD Bakken horizontal well

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Thomas Richmond

(title:) Administrator

Date: December 23, 2013

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Richland County water wells

(subject discussed)

December 23, 2013

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____